

WHAT IS CLAIMED IS:

1. A liquid crystal display comprising:
 - a liquid crystal panel assembly including a plurality of pixels arranged in a matrix;
 - 5 a gate driver applying gate signals to the pixels;
 - a data driver selecting gray voltages corresponding to gray signals and applying the selected gray voltages to the pixels as data signals; and
 - a signal controller providing the gray signals and control signals for controlling the gray signals for the gate driver and the data driver,
 - 10 wherein the data signals include normal data signals and a black data signal, the data driver alternately applies the normal data signals and the black data signal to the pixels under control of the signal controller, and a scanning direction of the normal data signals is opposite in adjacent frames.
2. The liquid crystal display of claim 1, wherein the black data signal is
15 simultaneously applied to the pixels.
3. A liquid crystal display comprising:
 - a liquid crystal panel assembly including a plurality of scanning areas including a plurality of pixels arranged in a matrix and including respective switching elements connected to a plurality of gate lines and a plurality of data
20 lines;
 - a gate driver applying a voltage for turning on the switching elements to the gate lines;
 - a data driver selecting gray voltages corresponding to gray signals and applying the selected gray voltages to the pixels via the data lines as data signals;
 - 25 and
 - a signal controller providing the gray signals and control signals for controlling the gray signals for the gate driver and the data driver,
 - wherein
 - the gate driver includes a plurality of gate driving devices;
 - 30 the gate driving devices are connected to the gate lines;

the pixels in different scanning areas are connected to different gate driving devices through the gate lines;

the data signals include normal data signals and a black data signal;

the normal data signals and the black data signal are alternately applied to
5 each scanning area;

the normal data signals are applied to one of the scanning areas, and then the black data signal is applied to one of remaining scanning areas except for the one of the scanning areas; and

scanning of the scanning areas for a previous frame is completed, and then
10 scanning directions within the scanning areas for a next frame are opposite to scanning directions of the previous frame.

4. The liquid crystal display of claim 3, wherein the black data signal is simultaneously applied to the pixels in one of the scanning areas.

5. The liquid crystal display of claim 3, wherein the black data signal
15 applied in a previous step are held on at least one of the scanning areas during scanning of one of the scanning areas.

6. The liquid crystal display of claim 1 or 3, wherein polarity of the normal data signals on adjacent frames is opposite.

7. The liquid crystal display of claim 1 or 3, wherein the liquid crystal
20 display is in an OCB mode.

8. A method of driving a liquid crystal display including a plurality of pixels arranged in a matrix, each pixel including a liquid capacitor filled liquid material, the method comprising:

a first data voltage application step applying normal data voltages to the
25 pixels in a first direction;

a second data voltage application step applying a black data voltage to the pixels;

a third data voltage application step applying normal data voltages to the pixels in a second direction; and

30 a fourth data voltage application step applying the black data voltage to the pixels.

9. The method of claim 8, wherein polarity of the normal data voltages applied in the first data voltage application step is opposite to polarity of the normal data voltage applied in the third data voltage application step.

10. The method of claim 8, wherein polarity of the black data voltage applied in the second data voltage application step is opposite to polarity of the black data voltage applied in the fourth data voltage application step.

11. A method of driving a liquid crystal display including a plurality of pixels arranged in a matrix, each pixel including a liquid capacitor filled with liquid material and including a plurality of areas provided with the pixels, the method comprising:

a first data voltage application step applying normal data voltages to a first area of the plurality of areas in a first direction;

a second data voltage application step applying a black data voltage to a second area following the first area;

a third data voltage application step applying normal data voltages to the second area in the first direction;

a first repeating step repeating the first data voltage application step to the third data voltage application step for the plurality of areas;

a fourth data voltage application step applying normal data voltages to the first area in a second direction;

a fifth data voltage application step applying the black data voltage to the second area;

a sixth data voltage application step applying normal data voltages to the second area in the second direction; and

a second repeating step repeating the fourth data voltage application step to the sixth data voltage application step for the plurality of areas.

12. The method of claim 8 or 11, wherein the first direction is opposite to the second direction.

13. A liquid crystal display comprising:
a plurality of pixels,

wherein normal data signals and a black data signal are alternately applied to the pixels, and normal data holding period of the pixels averaged over adjacent two frames is uniform.

14. The liquid crystal display, wherein scanning directions for the
5 adjacent two frames are opposite each other.